

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Makoto SUNAGAWA et al. : **Mail Stop: PCT**

Serial No. 10/550,395 : Attorney Docket No. 2005-1498A

Filed September 22, 2005 :

NOVEL CARBAPENEM COMPOUNDS :  
[Corresponding to PCT/JP2004/004978  
Filed April 6, 2004]

THE COMMISSIONER IS AUTHORIZED  
TO CHARGE ANY DEFICIENCY IN THE  
FEE FOR THIS PAPER TO DEPOSIT  
ACCOUNT NO. 23-0975.

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- each U.S. Patent and U.S. Patent application publication;
- each reference previously cited in the international application PCT/\_\_\_\_\_ ; and/or
- each reference previously cited in prior parent application Serial No.

1a.  This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, or

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

**and thus no certification and/or fee is required.**

- 1b.  This Information Disclosure Statement is submitted  
after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:  
(1)  the certification of paragraph 2 below is provided, **or**  
(2)  the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

- 1c.  This Information Disclosure Statement is submitted:  
after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:  
**the certification of paragraph 2 below is provided, and**  
**the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified
- a.  that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or
  - b.  that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

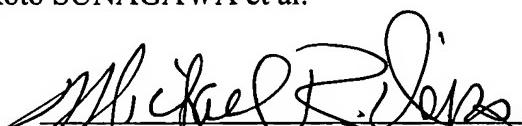
3.  Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.
4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
  - a.  a full or partial English language translation submitted herewith,
  - b.  a foreign patent office search report (in the English language) submitted herewith,
  - c.  the concise explanation contained in the specification of the present application at page 3,
  - d.  the concise explanation set forth in the attached English language abstract,
  - e.  the concise explanation set forth below or on a separate sheet attached to the reference:
5.  A foreign patent office search report citing one or more of the references is enclosed.
6.  Comments:

The US '566 reference cited on the attached PTO-1449 form corresponds to the WO '146 reference cited in Applicants' IDS of September 22, 2005.

Respectfully submitted,

Makoto SUNAGAWA et al.

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December 19, 2005

## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 ( <i>modified</i> ) <b>U.S. DEPARTMENT OF COMMERCE</b> <b>PATENT AND TRADEMARK OFFICE</b> <b>LIST OF REFERENCES CITED BY APPLICANT(S)</b> <i>(Use several sheets if necessary)</i> Date Submitted to PTO: December 19, 2005			ATTY DOCKET NO. 2005-1498A		SERIAL NO. 10/550,395		
			APPLICANT Makoto SUNAGAWA et al.				
			FILING DATE September 22, 2005		GROUP		
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,587,374	12/1996	Perboni et al.			
	AB	5,104,867	4/1992	Kawamoto et al.			
	AC	5,242,914	9/1993	Kawamoto et al.			
	AD	5,679,790	10/1997	Abe et al.			
	AE	5,783,703	7/1998	Hayashi et al.			
	AF	5,534,510	7/1996	Abe et al.			
	AG	6,342,494	1/2002	Matsui et al.			
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AH	03/089431	10/2003	WO			
	AI	0 538 001	4/1993	Europe			
	AJ	0 430 037	6/1991	Europe			
	AK						
	AL						
OTHER DOCUMENT(S) ( <i>Including Author, Title, Date, Pertinent Pages, Etc.</i> )							
	AM	William J. Weiss, et al., "In Vivo Activities of Peptide Prodrugs of Novel Aminomethyl Tetrahydrofuranyl-1β-Methylcarbapenems", Antimicrobial Agents and Chemotherapy, Vol. 43, No. 3, pages 460-464, March, 1999.					
	AN	L.D. Cama et al., "Total Synthesis of Thienamycin Analogs - III, Synthesis of 2-Aryl and 2-Heteroaryl Analogs of Thienamycin", Tetrahedron, Vol. 39, No. 15, pages 2531-2549, 1983.					
	AO	Ravindra Nath Guthikonda et al., "Structure-Activity Relationships in the 2-Arylcarbapenem Series: Synthesis of 1-Methyl-2-arylcarbapenems", Journal of Medicinal Chemistry, Vol. 30, No. 5, pages 871-880, 1987.					
	AP	Jeremy D. Hinks, et al., "Preparation and reactivity of carbapenem-2-stannane", Tetrahedron Letters, Vol. 41, No. 16, pages 2995-2998, 2000.					
EXAMINER			DATE CONSIDERED				

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of form with next communication to applicant.

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FORM PTO 1449 ( <i>modified</i> ) <b>U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE</b> LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i> Date Submitted to PTO: December 19, 2005			ATTY DOCKET NO. 2005-1498A		SERIAL NO. 10/550,395		
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U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA	6,410,525	6/2002	Matsui			
	BB	5,208,348	5/1993	Iwasaki et al.			
	BC	5,153,187	10/1992	Iwasaki et al.			
	BD	5,583,218	12/1996	Takemura et al.			
	BE	5,258,509	11/1993	Nakagawa et al.			
	BF	2004/0063683	4/2004	Sunagawa et al.			
	BG	2005/0020566	1/2005	Sunagawa et al.			
	BH	5,011,832	4/1991	Dininno et al.			
	BI	5,025,006	6/1991	Dininno et al.			
	BJ	5,220,011	6/1993	DiNinno et al.			
	BK	5,292,879	3/1994	DiNinno et al.			
	BL	5,350,836	9/1994	Kopchick et al.			
	BM	2004/0242874	12/2004	Winkley et al.			
	BN						
	BO						
	BP						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	BQ						
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
	BR						
EXAMINER			DATE CONSIDERED				

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